

Christopher F. Powell

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Professional Experience

- **April 2003-Present.** Engine Research Scientist in the Engine and Emissions group of the Center for Transportation Research at Argonne National Laboratory
 - Principal Investigator of the X-ray Fuel Spray Project, using X-ray diagnostics to study the fluid mechanics of sprays and fuel / air mixing
- **April 1999-March 2003.** Postdoctoral Research Associate in the Advanced Photon Source and Center for Transportation Research at Argonne National Laboratory
 - Leading experimental role in the world's first quantitative X-ray measurements of fuel injection
- **September 1992-February 1999.** Graduate Research Assistant, National Superconducting Cyclotron Laboratory, Michigan State University
 - Studied the reaction dynamics of exotic nuclei at one of the world's leading nuclear physics laboratories

Education

- PhD, Chemical Physics, Michigan State University, 1998
- BS, Chemistry, Indiana University, 1992

Awards

- Co-Author, Best Paper Award, CIMAC/ASME Congress 2004, Kyoto, Japan, June 2004
- Award for Excellence in Oral Presentation, awarded by The Society of Automotive Engineers, July 2004
- Combustion and Emissions Control R&D Award, awarded by the U.S. Department of Energy, May 2002. "In recognition of outstanding achievement in research and development of Diesel Fuel Sprays using X-rays".
- Argonne National Laboratory Director's Award, July 2001, "In recognition of opening up a new field for engine and spray research with the potential to establish Argonne as the leader in this area"
- Finalist, 2001 Discover Award for Transportation, Discover Magazine, July 2001

- Award for Excellence in Oral Presentation, awarded by The Society of Automotive Engineers, March 2001
- Argonne National Laboratory Pacesetter Award, June 2000

Career Activities & Highlights

- Co-invented high-speed X-ray radiography for the study of fuel injection
 - This invention has led to the establishment of Argonne National Laboratory as the world's leader in this field
- Manage several collaborations with industrial partners in fuel spray research, including the world's leading manufacturers of fuel injection equipment
- Principal Investigator of Argonne's fuel spray research group, which has recently secured dedicated laboratory space at The Advanced Photon Source, guaranteeing experimental access to one of the world's largest X-ray sources
- Actively involved in the American Society of Mechanical Engineers Internal Combustion Engine Division
- Actively involved in the Society of Automotive Engineers

Publications

- Peer Reviewed Publications: 40
- Conference Proceedings: 26
- Publications *in press* (2009): 2